16. ‘Not a machine for the careless or the ham fisted’

Settling into the cockpit of Hudson A16-97, Bob Hitchcock, his small suitcase stowed, was secure in a dual-purpose harness. His ‘QC (quick connection) seat type’ parachute allowed for interchangeability with the second pilot or navigator. The Irving parachute pack attached to his harness served as a cushion. Hitchcock faced an array of controls that were now familiar. He could see around him the dials and instruments he had learned to read — the levers, buttons, and switches he knew would respond to his touch, the engine control pedestal with its three cranks for ailerons, rudder and, closest to him, the elevator. In his mind and muscle memory there was recently acquired experience. He had come to know the subtleties of the brakes, operated by pulling a car-type ratchet lever set in the central pedestal to his right. He had been instructed on the Hudson’s tendency to swing during the landing run and the consequent importance of a three-point landing, touching down with the main and tail wheels at the same time. He had been warned of the danger if braking became necessary during a landing run and he was forced to lean to one side and pull — the rudder bar’s effectiveness could be compromised, the differential brake could be applied unwittingly, resulting in a ground loop. If that were to happen he had the further concern that the fuel tanks, directly above the undercarriage struts, might rupture and be set ablaze.\(^1\) He had probably heard as well of the story told by Pat Hall to pilots undergoing conversion courses with him at Richmond. An unexplained Hudson crash in England, Hall had said, was attributed to the accidental shifting of the flap lever downwards when the aircraft was flying at high speed. Something to be particularly careful about.\(^2\)

Yet, for all the rumination about Hudson peculiarities and potential dangers, with assiduously acquired knowledge and over 100 hours practice to subdue any lurking apprehension, Bob Hitchcock was in command. To Dick Wiesener, in the right-hand seat, every inch of the machine’s 44' 3\(\frac{3}{8}\)" (13.51m) fuselage and 65' 6" (19.96m) wing span was new.\(^3\) The previous day’s brief observation

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2 The Court of Inquiry into the crash of A16-27 on 12 Aug. 1940 would conclude that there was no evidence of what the effect of lowering the flaps at high speed would be; but it was possible, and pilots and crew should be warned that it might cause an accident (NAA: A705, 32/10/2830).

3 There are slight discrepancies in the quoted measurements in different sources. Measurements here are manufacturer’s specifications. See also http://airforce.gov.au/raafmuseum/research/aircraft/series2/A16.htm.
from behind the pilot had made a deep impression. In his mind, too, as in the
captain’s, was knowledge of what they had read and been told by others about
this powerful new aircraft. He could not fail to notice the distinctive smell,
unlike anything he would previously have encountered: ‘something to do with
fresh cellulose, upholstery fabrics, floor coverings, and a beautifully clean Elsan’,
a British Hudson pilot and student of the aircraft would say, ‘mingling with the
taint whiffs of hydraulic and de-icer fluids, aviation fuel, several different kinds
of oil, synthetic rubbers and who-knows-what’. 4

Wiesener knew that the Hudson’s Pratt & Whitney G-3-5 twin-row engines gave
it superior performance to the Hudsons delivered to the RAF. He understood
that it was faster than the Dutch Lockheed 14s because of less radial resistance
and extra horsepower. He knew that its payload would be less than the British
machines. There was assurance though in knowing that the Hydromatic (full
feathering) propellers fitted to Hudsons 51 to 100 could be stopped from
revolving in a few seconds if an engine failed, reducing vibration and making it
easier to fly on one engine. Now, in one of the first 17 Hudsons delivered to the
RAAF with dual controls, Wiesener could begin his formal conversion. 5 First he
would see, as the British Hudson instructor Geoffrey Bartlett recalled, the help
that was necessary in starting the engines from the cockpit:

…it required dexterity single-handed. What with working the hand-
pump (the ‘wobble’ pump), priming via an electric push-button,
pushing the separate starter and booster buttons simultaneously, and
turning on the ignition switch after one full revolution of the propeller. 6

For the men who would fly them, there was much to admire as well as to learn
about the Hudson. They would be quick to notice its comfort and sound-proofing.
Those who were on the alert to the rapid and remarkable developments in
aircraft technology from the mid-1930s onwards would know that the Lockheed
company was in the forefront. The first fully pressurised plane, Lockheed’s XC-
35, had taken to the air in May 1937. Feathering airscrews — which cut the
drag of a failed engine on multi-engined aircraft — had been introduced for
the first time on Lockheed 14 transports. 7 A brilliant young Lockheed engineer,
Clarence ‘Kelly’ Johnson, had also developed the Fowler wing flap for the model

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5 ‘Supply of Lockheed Hudson aircraft’, NAA: A705, 2/9/1/350. On the delivery of Lockheed Hudsons, see
‘Aviation-Purchase of Lockheed Bombers’, Prime Minister’s Dept Correspondence, NAA: A1608, F17/1/12; War
Cabinet Agendum No 28/1939 ‘Delivery of Lockheed “Hudson” aircraft from USA’, NAA: A2671, 28/1939; War
Cabinet Agendum No 84/1940 ‘Supply of 31 Lockheed Hudson aircraft and 16 spare engines’, NAA: A2671,
6 Hendrie, Lockheed Hudson in World War II, p.17.
7 Peter W. Brooks in C. H. Gibbs-Smith, Flight Through the Ages: A Complete Illustrated Chronology from the
dreams of early history to the age of space exploration, Hart-Davis McGibbon, London, 1974, p.156.
14, designed to improve braking safety and enhance speed when retracted in flight. As the manual for the Model 14 medium-range bomber supplied to the Australian authorities explained:

Trailing edge Fowler type wing flaps on the under surface of the Lockheed Model 14 wing are operated hydraulically and controlled by the pilot...The principal effect of these flaps is to increase the maximum lift coefficient without increasing the vertical sinking speed. The flaps also permit shorter take-offs with steeper climb after take-off for clearance of obstacles. This increase in lift is not accompanied, as in the case of the split flap, with so large an increase in drag. This further facilitates their use for take-offs...it is possible to carry a much larger load for a given wing area than with the split type of flap. With present day low power loadings, take-off distance, not flight, becomes the critical factor governing wing loading.

Lockheed’s assurance: ‘the absence of any undesirable stalling characteristics’

*(Flight, 15 June 1939)*
The Lockheed engineers, Hall Hibbard and Kelly Johnson, had settled on a highly loaded wing of relatively small span and area to enable a faster cruising speed. The Fowler flaps were necessary to reduce the otherwise excessive approach and take-off speeds. Drag was increased to lower approach speed, and the wing area was augmented to assist take-off.

The Hudson, with its fuselage constructed of 24ST Alclad aluminum alloy sheet, was still in some ways an unproven aeroplane. This could have been expected for a civil airliner that had been mocked up as a coastal reconnaissance bomber in five days in April 1938 to capture the imagination of a British Purchasing Mission. By the time Lockheed had completed the 250th Hudson in November 1939 the company had more than doubled its staff, pioneered mass-production methods, and started apprenticeship and retraining programs for desperately needed aircraft engineers.  

As the aircraft was tested and brought into service, there had been accidents in America and in Britain whose causes were still being studied. The Lockheed 14 was in service with several Norwegian, Dutch, Polish, and Swiss airlines. Japan’s GJAL owned some, as did Trans Canada Airlines. The company representative in Europe had given a ‘frank exposition’ to the leading aeronautical magazine of what was known about the early failures of the Lockheed 14. But doubts persisted about an aircraft that was ‘delicate to handle…stalls suddenly, at a rather high speed, and so ought only to be committed to the care of thoroughly competent pilots. It is not a machine for the careless or the ham fisted.’ There was talk of the RAF following the lead of British Airways and cutting slit-slots into the wing-tips in front of the ailerons to further improve control of the aircraft at below normal stalling speeds. It was not only Service pilots unfamiliar with its peculiarities who lost control. In a crash on a test flight near Birkenhead, Cheshire, late in July 1939, a Lockheed pilot, factory inspector, and mechanic who were employed at the assembly plant at Speke Airport, were killed.

Lockheed’s own development work was ongoing. In due course Australian pilots like ‘Spud’ Spurgeon, flying in Singapore with No. 8 Squadron, were to discover that the aircraft ‘had about four-and-a-half hours’ range in it, I suppose, five if you squeezed it. The books used to say it had seven hours, but I think that must have been in the minds of the advertiser.’ This was the performance with the Mark I aircraft with Pratt & Whitney Twin Wasp engines. The first Mark III Hudsons with Wright Cyclone engines were no better. When Donald Bennett

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11 ACdre C. H. Spurgeon, interview, The Australians at War Film Archive, Dept of Veterans Affairs, Archive No. 0937. Strictly, Spurgeon was speaking of endurance (a measure of time) not range (a measure of distance).
inaugurated the trans-Atlantic ferry service for the RAF, he was charged with testing the aircraft as well as selecting and preparing crews for long-range delivery flights. Bennett’s first trial flight, over five hours at the Lockheed plant in Burbank in mid-September 1940, indicated that the performance figures supplied by Lockheed were inaccurate. He was right.12

In May 1940 it had been acknowledged that in certain Hudsons the pilot’s compass was subject to ‘variable magnetic disturbance due to (a) control column (b) undercarriage’. Flight Lieutenant Geoff Hartnell, the navigation officer attached to the Directorate of Operations and Intelligence, had reported on the problem. No-one was sure how many aircraft were affected. Pending further investigation, a confidential order was promulgated that the pilot’s compass was not to be relied on for navigation unless it had definitely been established that it was not adversely affected by either cause. By early July the undercarriage had been identified as the culprit, the major cause of the difference between the compass deviation on the ground and in the air. A new order on July 5 pointed out the obvious, that it was impracticable to swing the compass on the ground with the undercarriage retracted. Therefore, until further notice, all pilots’ compasses were to be swung in the air by bearings taken on the sun. The entry in both the airframe and compass logbooks had to be endorsed to that effect. Commanding officers were to make arrangements for instructional lectures on the required compass-swinging method.13 Bob Hitchcock’s logbook for July and August shows that this quickly became a priority. For someone whose father’s death was officially attributed to a faulty compass, this was hardly surprising.14

In the first few months of Hudson operational flying in Australia there had been a number of accidents. Mishandling of controls and a poor standard of night flying and instrument flying were diagnosed when Pilot Officer Val Morehouse of No. 1 Squadron lost height on take-off and struck a tree with A16-1’s port wing tip on May 13. Morehouse would have another mishap on July 17, overshooting on landing and damaging the undercarriage and bomb chamber of A16-1.15 Two days later, A16-31 in No. 14 Squadron at Pearce was damaged in a landing accident and sent for conversion to components. According to the Directorate of

14 ‘The Committee consider that the primary cause of the tragedy was the inaccuracy of the compass through which Lieutenant Anderson lost his direction and bore to the north of his intended course.’ Report of Air Inquiry Committee in Connexion with the Flights of Aeroplanes “Southern Cross” and “Kookaburra”, March–April 1929, Victorian Govt Printer for Commonwealth Govt, p.12.
15 NAA: A9845, 134 Lockheed Hudson A16 [Accidents Part 1].
Training the accident was caused by ‘inexperience on the type of aircraft’. On May 23, Flying Officer J. F. Murphy of No. 6 Squadron had crashed on take-off in Canberra and was disciplined for negligence in not removing early-morning hoar frost. A week later both engines failed in a Hudson from No. 2 Aircraft Depot and Flying Officer Lloyd Douglas landed the aircraft 15 miles north of Junee with its wheels up. Another Hudson, A16-58 of No. 6 Squadron, had stalled at 300 feet, crashed, and burned five miles north of Windsor on July 17, killing the pilot, Flight Lieutenant Jim Hamilton, and Cadet Wallace Stewart who was with him. Hamilton had 15 hours of dual instruction and eight hours solo. Squadron Leader Bertie Simms would tell a Coroner’s court two months later that the pilot would have needed another nine or 10 hours before being allowed to take a full crew into the air.

Commenting on the unexplained accident in which Jim Hamilton was gaining solo practice, the Training Directorate urged: ‘Whenever possible, whilst a pilot is gaining experience as 1st pilot in Hudson aircraft during the early stages after a conversion course, an experienced Hudson pilot should be carried in the aircraft.’ As ‘Dad’ Bladin had minuted in a handwritten note to Jones: ‘There may be arguments against this but Hudsons are too valuable to take any chances with them these days.’ Bladin may not have heard that Lockheed’s ‘Swede’ Parker had been showing his own prowess and the aircraft’s unadvertised aerobatic capability by doing rolls when no official eyes were on him. Or that the irrepressible Flight Lieutenant Brian ‘Black Jack’ Walker, who had survived critical injuries as a cadet when his Wapiti was totally wrecked in a 1935 crash at Echuca, was ignoring Parker’s warning that ‘this Hudson is strictly not aerobatic’.

16 RNZAF tradesmen sent to Laverton to learn about the Hudson evidently were not told of the need to remove hoar frost; they worked it out for themselves after a failed take-off at Whenuapai in mid-1941 (Geoffrey Ellis, Tool Box on the Wing: My Life in the Air Force, Mallinson Rendel, Wellington, 1983, pp.181–2).
17 Canberra Times, 3 Sept. 1940.
Inside the Hudson cockpit at Laverton

(Photo by Frank Jefferies, courtesy of Paul and Helen Struc)

The word was out that the Hudson was not without its perversities. Paddy Heffernan had been given a sobering surprise while under instruction from Alec Barlow in Canberra. Preparing to ‘land’ in cloud at 6000 feet, he was told at the last moment to go round. When power was applied the aircraft snap-rolled into an inverted dive. 20 Val Hancock, then CO No. 1 Bombing and Gunnery School, also knew ‘that the Hudson had some unpredictable tendencies when the flaps were set for various configurations as I got this information in conversation with Flt./Lt. Simms who did the first conversion on the aircraft’. Bertie Simms, one of the RAAF hierarchy’s favourite pilots, had been sent to Burbank in April 1939 for instruction. He had seen the efforts Lockheed were making to overcome the dangerous stalling proclivities of the first generation of Hudsons. If Simms, knowing of the modifications that had been made to the original model, commented on it, there was a reason to be cautious. At least one of those under his command in August 1940 would later testify that Simms was not a very good pilot, and those who were proficient Hudson pilots were not popular with

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him. Still, as a Squadron Leader in February and March 1940, with the ‘control and direction’ of the six teams at Richmond responsible for the first Hudson conversion courses, no one spoke with more authority.  

**A16-97**

Much of this Bob Hitchcock could not fail to know. He knew too that, with the exception of his second pilot, he had a seasoned crew. Notwithstanding the Hudson’s temperament there was no reason to suppose that the journey would be anything but uneventful. As he prepared to leave, Hitchcock discussed the weather with his CO: ‘he informed me that weather conditions were clear sky all the way’, Freddie Thomas remembered. Before being handed over for operational duty, A16-97 had been flown without mishap for two hours and 35 minutes by the Lockheed test pilot. Whatever the aircraft’s challenges in the air, on the ground it had been thoroughly prepared for the flight. Received at 1 Aircraft Depot on 20 June 1940 along with eight others, A16-97 was allotted to No. 2 Squadron on 2 August 1940. By then the squadron had 11 Hudsons, seven of them delivered within the last month.

On the morning of August 13, a four-man team at Laverton had serviced A16-97, carrying out what was officially known as a ‘tradesmen’s daily inspection’. The machine, which had been assigned to A Flight for the first time, had been given a major check the previous afternoon when it was known that it was to be used to carry the Air Minister and his companions. The work on Tuesday morning was done according to the Aircraft Maintenance Schedule for the Hudson-Wasp, S.C.3G. The schedule, issued on August 1, was meant to be used ‘in connection with unit maintenance orders, part II, in accordance with

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23 RAAF aircrew had been required to wear parachutes since 1927, happily for Sam Balmer who fell out of the Wapiti in which he was instructing a trainee in Aug. 1937 (Chris Clark, *90 Years of the RAAF: A Snapshot History*, Airpower Development Centre, Canberra, 2011, p.50); and for F/Lt Sturt de Burgh Griffith and two companions, lost in cloud and out of fuel en route to Canberra from the coast, who had to bail out of their Anson just before midnight on 10 Jan. 1940 (No. 1 Squadron Operations Record Book, NAA: A9186 1; *The Argus*, 12 Jan. 1940).
24 Ron Cuskelly to CH, 15 July 1978; Air Force Court of Inquiry, report of His Honour Mr Justice Lowe, NAA: A705, 32/10/2729/19; Aircraft status card: Lockheed Hudson A16-97, NAA: A10297, BLOCK 84/180.
25 No. 2 Squadron Operations Record Book, 1 Aug. 1940, NAA: A1980 599. The normal establishment would have been 18, with six in reserve. But because of ‘commitments entered into with the United Kingdom government’ squadrons were operating on reduced numbers. (‘Service Squadron Establishments’, A.F.C.O. 71, 1 July 1940, NAA: A7674, 1/116).
aeroplane maintenance instructions, RAAF publication No. 42’. Fitter Corporal
James W. Davey assisted by two mechanics, Rigger AC1 Les Roffey (Corporal J. Morrow had been detailed the previous day), the electrician, W.O. Mechanic AC1 Graham Bardwell, and Instrument Maker Corporal Paul Dines all carried
out their designated checks. Instruments, engines, propellers, flap mechanism
and the flap indicator, petrol and oil, pressure gauges, hydraulics, gyro pilot —
all were in good order. The altimeter and rate-of-climb indicator were corrected.
Wireless operator Corporal Jack Palmer looked over his own equipment, the
AT5/AR8 radio installation. In flight, Palmer would be responsible for the
electrical systems as well as the radio. In recent months he had spent a lot of
time in the air and was at ease with the routine. As the aircraft was unarméd
there was nothing for the Armourer AC1 Moore to do. The NCO in charge of A
Flight, Flight Sergeant Fitter William S. McGowan (one of the first of the ground
staff to be instructed by the Lockheed team at Richmond), signed off the work
before Hitchcock did so at about 8.35 a.m. Like all pilots Bob Hitchcock had
seen the homily from the Chief of the Air Staff promulgated two months earlier:

Aircraft maintenance, although primarily the duty of the fitters, riggers
and technical non-commissioned officers, must also be a matter of
deep concern to all pilots no matter whether they are serving as flying
instructors or in operational units. The service now contains large
numbers of new airmen whose experience is very limited, and these men
must be assisted and encouraged to progress rapidly in their training.
Routine inspections must be adhered to strictly, and it is to be the duty
of all pilots to exercise general supervision over this work on the aircraft
for which they are responsible. They must be required to spend as much
time as possible with their aircraft so that they may be acquainted with
the maintenance staff and with all work performed, do cockpit drill,
study the petrol system, and generally take a keen interest in all matters
relating to their safe and efficient performance.26

As Hitchcock’s logbook shows, he had been working closely with the team of
Roffey, Davey, Morrow, Dines, Crosdale, and McGowan in the previous month.
They had all been in the air with him on several occasions. Before the flight,
Hitchcock had discussed with another pilot who had flown A16-97 (probably
his No. 2 Squadron colleague Bill Heath) the trim of the aircraft in relation
to the stowing of a load. He knew it was necessary to distribute the luggage
carefully around the cabin. So far as fuel was concerned the ‘Daily Inspection
Certificate’ showed that there was a full load of 536 gallons and 24 gallons of
oil; the ‘responsible airman’ (JW) had confirmed this. At 2000 r.p.m., fuel usage
was estimated at 73 gallons an hour. In its seven hours and 10 minutes’ flying

26 I confess to having lost this reference, which was transcribed directly from a document in the National
Archives.
time A16-97 had been run at 1500 r.p.m.\textsuperscript{27} Hitchcock had also discussed with Jack Ryland which petrol tanks it was advisable to empty first, and the two rear tanks were suggested. With the load stowed correctly and the two rear petrol tanks emptied, he would be sure that the aircraft would be within its centre of gravity limits when it arrived for landing in Canberra.\textsuperscript{28}

Coughing tentatively, as the starter prompted them, the Pratt & Whitney engines would soon settle to a steady rhythm, flaring to a deep roar as they were put through their full throttle tests. Hitchcock could expect 1050 hp on take-off and 900 hp in level flight at 12 000 feet/3660 metres. The Hudson would need some 650 yards for its take-off run. As late as 1938 a runway of 600 yards was the standard for civil aerodromes but by 1940 the standard for multi-engined aircraft had been extended to 1500 yards.\textsuperscript{29} ‘Until its wheels are up,’ David Campbell reminisced, a Hudson ‘seems to be pulled off the ground by sheer brute force. You can hear the horses straining. Then the wheels tuck themselves up in three slow jerks and the aircraft begins to fly.’\textsuperscript{30}

**Uplift at Essendon**

It was a short hop from Laverton to Essendon where the passengers were to be collected. Hitchcock had been instructed to leave Laverton in time to depart with his passengers at 9.15 a.m. He took off at 8.47 a.m. As he came into Essendon aerodrome from the west around 13 minutes later, the air was filled with training aircraft of No. 3 Elementary Flying Training School. In the control tower, the CO of 3 EFTS, Squadron Leader Roy ‘Beau’ King DSO DFC, was watching the circuits and landings. King, a Great War ace was credited,
somewhat generously, with 26 victories. An AFC 4th Squadron colleague of Harry Cobby and George Jones, he had seen everything in subsequent years as a pioneer flyer in the Northern Territory. Now he was doing his bit to be useful in preparing a new generation to fight. He asked the civil operator to put the red light on several of the training aircraft, indicating that they were to take another circuit to make way for the Hudson to land. One pupil did not see the signal and completed his landing. The Hudson, already turned into the wind with its undercarriage and flaps down, was at about 100 feet when it pulled up to make a second circuit. Hitchcock may have seen the obstruction on the ground. Or possibly received a ‘do not land’ light intended for another aircraft. King observed that the undercarriage was retracted and the flaps were pulled up as the motors were put on. To clear the way for the Hudson, two more elementary aircraft were given red lights by the Assistant Control Officer, J. J. Williams. The signals from the control tower reflected the delicate demarcation of authority between the civilian controller of a civil aerodrome and the RAAF users who shared it. Although the RAAF aircraft were not under civil control they would normally obey signals from the control tower and use the civil aeradio service.

‘Beau’ King had heard the Hudson’s engines as it came in a mile or so away at about 1000 feet. Evidently he was not expecting it. After making his second circuit, Hitchcock landed and taxied up to within 25 yards of the control tower, turned into the wind, and shut off the engines. It was 9.05 a.m. King thought the landing ‘a particularly good one’ and remarked on it to the control tower officer. Hitchcock went over to the tower and reported to King who, no doubt conscious of his own nine-inch height advantage, had come down the steps to meet him. Hitchcock began to apologise for interrupting the flying training, but King told him it was unnecessary to do so. What King wanted to know was what Hitchcock’s duty was. Hitchcock explained that he was to pick up ‘Federal Ministers and others’ to convey them to Canberra. King asked him if he knew who his passengers were. He did not but was ‘under the impression there were to be six’. King asked Hitchcock for the names of his crew.

Before Hitchcock could complete writing a list, his first passenger arrived. Sir Harry Gullett emerged from his chauffeur-driven car and joined the two officers. After a few minutes conversation, Hitchcock excused himself to report to the meteorologist’s office. Before he left Laverton he had received a summary weather report with a ‘route forecast’ from the duty pilot. But he was to collect
at Essendon the more detailed ‘Aviation Meteorological Report’ that would
give him the latest wind and cloud observations, visibility, and any necessary
warnings. The forecast, based on a chart drawn up at 6.00 a.m., was:

Scattered to broken cloud — base 2000/3000 feet south of ranges. Broken
to overcast on the ranges with snow. Icing risk in cloud above 3000 feet.
Cloudless or scattered cloud north of ranges, with morning fog or low
stratus in valleys.

They would fly via Benalla, Hotham (where dense fog was likely), Albury,
Wagga, and Cootamundra. At Canberra as they came in to land they could
expect a northwest wind at 20 miles an hour. Nothing to be concerned about, as
the aerodrome Weather Officer, John Nance, told him.

Meanwhile, as Harry Gullett and his bag-carrying chauffeur headed for the
aircraft, Squadron Leader King decided to assert himself. A little irritated
perhaps by the lack of warning about the interruption to his morning routine
and the vagueness about the Hudson’s passengers, King immediately instructed
the duty pilot of the EFTS to get the names of the crew, ‘the passengers who
actually got into the aircraft, its time of arrival, departure and destination’. Pilot
Officer J. B. Wilson walked over to the aircraft and took details of the crew
mingling with the Air Minister’s RAAF sergeant chauffeur and Gullett’s civilian
chauffeur before asking Hitchcock for the names of the passengers and the flight
plan. As A16-97 began manoeuvring for take-off, Wilson followed King back
to the control tower. At 9.40 a.m., some 10 minutes after the aircraft left the
ground, Wilson delivered the information his chief required. King thereupon
telephoned Southern Area HQ to advise Wing Commander Lachal.32 Being
the authority for the flight as SASO Southern Area HQ, Lachal was due for a
polite remonstrance. Of the nine copies of the flying operation instruction form
distributed from Laverton, none had been sent to Essendon.

When it left Laverton, the aircraft had four 50lb sandbags loaded as ballast. The
sand was to compensate for the dorsal gun turret that had not yet been fitted
to the Hudsons, and for the gunner and ammunition that the plane was also
designed to carry. (It was illegal for the neutral United States to supply armed
aircraft.)33 With six passengers joining at Essendon, the four sandbags were
removed to ensure the correct centre of gravity was maintained.34 Although

32 The sequence of events at Laverton and Essendon and in the air thereafter is reconstructed from
documents and oral evidence tendered to the Air Court of Inquiry, NAA: A705 32/10/2729 and the Service
Court.
33 For Menzies’ perturbation at the American Neutrality Proclamation cutting off Australian access to
military aircraft and ‘civil aircraft for civil training’, see Menzies, Personal Cablegram to President Roosevelt,
7 Sept. 1939, NAA: A1608, F 17/1/2.
1940, (Most Secret), para. 5, NAA: A705 32/10/2733.
it was not his responsibility to identify the passengers, the tarmac officer I. Smith recognised four men among the crew and drivers: Sir Harry Gullett, Jim Fairbairn, Dick Elford, and Geoff Street. He noticed two others near the plane but did not see them get aboard. One, he thought, was a colonel in uniform.35 Having got all of the passengers seated, Hitchcock started the engines. The last man into the aircraft was Fairbairn, who had been in conversation with King about the Empire Air Training Scheme before excusing himself as he was in a hurry.36 Assistant Control Officer Williams noticed that it took two minutes for the starboard engine to start. Then the aircraft taxied to the east boundary of the aerodrome where it remained out of wind for about 10 minutes. Turning into wind, the aircraft paused, Williams thought, for about four minutes.

Taking seriously his obligation to instruct his neophyte second pilot, now would have been a sensible time for Hitchcock to give Wiesener another rundown on the instruments, draw his attention to the need to ensure that weight was properly distributed when there was a full load of passengers, and remind him of the effect of the flaps. Perhaps too the Minister for Air might ease himself forward to get a good look at the cockpit and listen to the briefing. From the control tower, A16-97 was seen to take off perfectly at around 9.30 a.m., make a left-hand circuit, and head for Canberra. Thirteen minutes later, Jack Palmer signalled Essendon confirming that VMZAY — to give it the civil call sign it had been allotted — had ‘left Essendon at 0930’.37 Palmer knew from the ‘Flying Operation Instruction’ issued on August 9 that he was to make scheduled calls at 10 and 40 minutes past the hour. The Essendon aeradio station confirmed ‘OK schedules 10 and 40’. At 10.12 a.m. Essendon was told that VMZAY was communicating with Canberra. The secondary aeradio station at Holbrook noted that Canberra was the next ‘schedule’. Palmer signalled Holbrook ‘QTR’, meaning ‘What is the time?’ and was told it was ‘1014½’.38 At 10.41 a.m. he sent ‘QRK? QRU’ (‘How are you receiving? I have nothing for you.’). Three minutes later he repeated ‘QRU’ and received ‘QRU’ in return. The aircraft and the Canberra station had nothing to tell each other. It was an uneventful flight.

‘The modern technique’

Having spent much of the last few months teaching others to fly Hudsons, Bob Hitchcock was well equipped to guide his second pilot through a safe approach

35 Director General of Civil Aviation to Secretary, Attorney General’s Dept, teleprinter message, 23 Aug. 1940, NAA: MO625 CP169/4 (Crown Solicitor’s Office Inquest file which appears to be NAA: A6079 MO625).
36 Tink, Air Disaster, p.213, asks: ‘Why was the air minister in a hurry? Was it to get a pre-flight briefing from Hitchcock?’ That was likely, although the most obvious reason was that everyone else was on board, waiting to go.
37 The DG Civil Aviation advised Sec. AG’s Dept that A16-97 took off at ‘0923’ (ibid.).
38 Palmer’s querying of the time has led to unfounded speculation that some sort of record attempt was being made (R. A. Fisher [Air Force Office, Dept of Defence] minute, 20 July 1990, courtesy Bronwyn and John Myrtle).
and landing. Dick Wiesener would have been familiar with the RAAF’s latest thinking promulgated in an Air Board Order just as he was completing his initial training. In a preamble, the Board explained why it was essential to issue fresh guidance on flying instruction:

The introduction of modern high wing-loaded, flapped monoplanes has rendered the old accepted methods of approaching and landing both difficult and unnecessary. Steep gliding turns with engine throttled back at low altitudes in the modern high wing-loaded monoplanes are necessarily difficult with more than a little danger involved in their performance, due to the rapid increase of the wing-loading to danger point resulting from a change of direction of the aircraft at comparatively low speeds.

For flyers of Jim Fairbairn’s vintage, this amounted to a warning that they would have to discard the habits of a lifetime if they were to fly the RAAF’s modern aircraft. The Air Board Order had set out the requirements for instructing pupils in ‘the modern technique’ at all stages of training. A normal powered approach or engine-assisted approach entailed a descent across wind from approximately 1000 feet to about 500 feet at a moderate angle, followed by a turn into wind and a straight descent at the same ‘moderate’ angle. In the vicinity of the aerodrome, air speed should not exceed 120 m.p.h. (the precise speed to depend on the actual aircraft type being flown). Noting the direction of the circuit and the wind, the pilot should then fly around the aerodrome in a wide circuit at approximately 1000 feet, keeping ‘a sharp look-out for other aircraft’. Turning across wind when to leeward, the best landing path could be chosen.

All this was second nature to Hitchcock. He could probably recite how to start a normal approach:

Throttle back, lower the flaps, and assume the correct approach speed. Trim the aeroplane for landing. Keep the throttle open sufficiently to achieve a moderate angle approach. When almost opposite the selected landing path, turn gently into wind and continue the approach at the same moderate angle. The approach should be arranged so that this turn is made at approximately 500 feet.

Hitchcock could talk those he was converting to the Hudson through the next stage. Much of it would sound simple and familiar to any pilot:

Maintaining the correct air speed with the elevators, regulate the angle of approach and the rate of descent with the throttle. If overshooting, throttle back. If under-shooting, open the throttle. During the approach towards the aerodrome, correct any drift and look well ahead and to each side.
Having reached about 20 feet, the control column would be moved back until the aircraft was flying just above the ground. As the throttle was gradually closed, the control column would be moved further back to prevent the aeroplane sinking until it was in the landing attitude when, all being well, ‘it will sink gently to the ground’.

This was fairly conventional advice. It was the effect of the flaps that needed special attention. When they were lowered, there ‘may be’ a large change of attitude. A steep nose-down attitude might be necessary to maintain an adequate approach speed to overcome the additional drag of the flaps. ‘Fortunately,’ the novice was assured, ‘the aeroplane tends to assume a nose-down attitude of its own accord immediately the flaps are lowered and no attempt must be made to hold the nose up.’

What then was the likely trouble? A steep attitude would result in a greater angle through which the aeroplane must be moved before the landing. The angle could, ‘if practicable’, be lessened by increased use of the engine. But owing to the drag of the flaps, a decrease in the steepness of the attitude would result in a loss of flying speed. ‘Since the lowering of the flaps increases the lift co-efficient of a wing, any reduction of the flap angle during an approach may result in the stalling speed being increased above the approach speed, and therefore the flaps must not be raised during the descent.’

As Canberra came into sight it was time to keep these cautions in mind. Below, east of the airport, were low, sparsely timbered hills, strewn with rocks and dotted with dead trees, stumps, and decaying logs where the ground had been cleared. As observant journalists described it, the hills — all of them a little over 2100 feet high — were scarred by deep gutters etched by cascading rain. That same rain, if it were heavy or persistent, could render the clay surface of the Canberra airfield hazardous for heavy aircraft. This morning the sky was clear, and a medium westerly wind caressed a spur of the range bordering the aerodrome. ‘Watchers on the aerodrome saw the plane approach shortly before 11 a.m.,’ the Sydney Morning Herald reported, ‘make the usual circuit and come in to land’:

It appeared as though the pilot had misjudged his height and decided not to land. The machine was trimmed for landing with the wheels lowered in position and the flaps down. The machine gained height and commenced a second circuit.

The hills on the western side of the aerodrome were known to possibly give a false horizon on the instrument panel. Hitchcock might have felt it necessary

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to go round again. Or perhaps he was just taking the opportunity to show his second pilot or the Air Minister some of the aircraft’s characteristics. From the ground near Queanbeyan, Hudson A16-97 was seen to begin another circuit, lower and slower, it seemed, than was customary. What at first looked merely unusual was about to be catastrophic.